News Report

NATIONAL ACADEMY OF SCIENCES • NATIONAL ACADEMY OF ENGINEERING
INSTITUTE OF MEDICINE • NATIONAL RESEARCH COUNCIL

1980 News Report Index

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News Report is a monthly register of activities of the National Academy of Sciences, National Academy of Engineering, Institute of Medicine, and National Research Council.

This index is intended insofar as possible to provide a digest of the contents of the 1980 issues of *News Report*. Because the publication is devoted in large measure to discussion of reports issued by committees and panels of these organizations, principal entries generally are listed by title of report discussed (not by title of *News Report* article), alphabetically. Names of persons, organizations, and agencies also are listed alphabetically. Subject headings and cross-references are included for topics of particularly wide interest (e.g., agriculture, energy, environment). The *News Report Index* is compiled by Elaine S. Hause.

Copies of the 1978 and 1979 indexes are available from the *News Report* office, National Academy of Sciences, 2101 Constitution Avenue N.W., Washington, D.C. 20418. Back volumes of *News Report* in microform can be ordered from University Microfilms International, 300 North Zeeb Road, Ann Arbor, Mi. 48106.

Ackermann, William C., chairman of new committee of the Commission on Natural Resources: *see* Water Resources Research Review

Advanced Energy Storage Systems, Committee on, Energy Engineering Board, National Research Council Assembly of Engineering: *see Hydrogen as a Fuel*

Agency for International Development: *see Summary Report . . . on Science and Technology in Jordanian Development*

agriculture: see *Carbon Dioxide and Climate;* Impacts of Emerging Agricultural Trends; *Psoroptic Cattle Scabies Research;* Rangelands Management; *Research Priorities in Tropical Biology; Summary Report . . . on Science and Technology in Jordanian Development; Weather-Information Systems*

Agriculture, U.S. Department of: *see* Byssinosis; Impacts of Emerging Agricultural Trends; Nitrates, Nitrites, and Alternative Curing Agents in Food; *Psoroptic Cattle Scabies Research; Weather-Information Systems*

Agriculture and Renewable Resources, Board on, National Research Council Commission on Natural Resources: *see Psoroptic Cattle Scabies Research;* Rangelands Management; *Weather-Information Systems*

Alcoholism, Alcohol Abuse, and Related Problems: Opportunities for Research, report of a study by a committee of the Institute of Medicine, National Academy of Sciences; tens of thousands of lives are lost each year as a result of alcohol abuse and alcoholism, and tens of billions of dollars are spent in dealing with prevention, effects, and treatment. The committee, at the request of the National Institute on Alcohol Abuse and Alcoholism, examined the status of research on alcohol abuse and sought to point out those areas most likely to help relieve the tremendous burden of alcoholism—Dec, 1

Alternatives for the Reduction of Chlorofluorocarbon Emissions, Committee on, National Research Council Commission on Sociotechnical Systems: *see Protection against Depletion of Stratospheric Ozone*

Andrew W. Mellon Foundation: *see* Conservation of Historic Stone Buildings and Monuments

Animal Health, Committee on, Board on Agriculture and Renewable Resources, National Research Council Commission on Natural Resources: *see Psoroptic Cattle Scabies Research*

atmosphere: *see Atmospheric Sciences; Carbon Dioxide and Climate; Protection against Depletion of Stratospheric Ozone; Strategy for the National Climate Program; Stratospheric Ozone Depletion*

Atmospheric Sciences: National Objectives for the 1980's, Steering Committee for the Atmospheric Research Review, Committee on Atmospheric Sciences, National Research Council Assembly of Mathematical and Physical Sciences; the report, based in part on a June 1978 workshop held by the committee, recommends priorities for study in the atmospheric sciences during the next decade. "High-priority national" attention should be given to research in weather prediction and atmospheric chemistry, the committee said. The effects of solar radiation on the atmosphere and weather modification were recommended as secondary subjects—Oct, 1

awards, National Academy of Engineering: Hoyt C. Hottel received the Academy's Founders Award Oct. 29—Nov, 4

awards, National Academy of Sciences: 11 persons were honored for contributions and services at the Academy's annual meeting: *National Academy of Sciences Public Welfare Medal* to W. Sullivan, *Henry Draper Medal* to W. W. Morgan, *George P. Merrill Award* to R. N. Clayton, *United States Steel Foundation Award in Molecular Biology* to P. A. Sharp, *National Academy of Sciences Award in Aeronautical Engineering* to J. S. McDonnell, *Waksman Award in Microbiology* to J. Adler, *National Academy of Sciences Award in Applied Mathematics and Numerical Analysis to* G. F. Carrier, *National Academy of Sciences Award for Environmental Quality* to G. F. White, *James Murray Luck Award* to W. C. Herring, *National Academy of Sciences Award in Chemical Sciences* to F. H. Westheimer, and *National Academy of Sciences Award for Distinguished Service* to W. C. Kelly—Jul, 6

Baer, Norbert S., chairman of National Research Council National Materials Advisory Board committee: *see* Conservation of Historic Stone Buildings and Monuments

Behavioral and Social Sciences, National Research Council Assembly of: new projects announced: Committee on Energy Taxation; Panel on Statistics for Rural Development Policy—Jan, 3; Panel on Survey-based Measures of Subjective Phenomena—Feb, 3; Working Group 55-Aging and Visual Function in Pilots—Mar, 3; Emergent Techniques for Visual Assessment—Dec, 3; *see also CETA; Energy Taxation; Forecasting the Impact of Legislation on Courts*

Berl, Walter G., cochairman of National Materials Advisory Board panel: *see Safety Aspects of Liquefied Natural Gas*

Biological Effects of Ionizing Radiations, Committee on, National Research Council Assembly of Life Sciences: *see Effects on Populations of Exposure to Low Levels of Ionizing Radiation*

Boyd, James, chairman of Committee on Surface Mining and Reclamation: *see Surface Mining of Non-Coal Minerals*

Byssinosis, Committee on, National Research Council Assembly of Life Sciences; an estimated 84,000 people suffer from byssinosis, a respiratory condition associated with inhalation of cotton dust and irreversible in its most advanced stages. The committee was formed, with support from the U.S. Department of Agriculture, to look at what is known about biological effects of cotton dust, to recommend protocols for research to find the harmful agent(s) in cotton dust, and to examine the degree to which current pulmonary-function tests detect byssinosis and predict its progression—Apr, 1

To remove Index, remove center staple.

Campbell, Angus, chairman of panel of the Committee on Radioactive Waste Management: *see* Integration of Socio-Economic Criteria into the Site Selection Process for a High-Level Radioactive Waste Repository

Cantlon, John, Environmental Studies Board chairman; quoted: *see Long-Range Environmental Outlook*

Carbon Dioxide and Climate: A Scientific Assessment, Report on an Ad Hoc Study Group on Carbon Dioxide and Climate, Woods Hole, Ma., July 23-27, 1979, to the Climate Research Board, National Research Council Assembly of Mathematical and Physical Sciences; excerpts—Jan, 5

Carbon Monoxide Control Assessment Panel, Diesel Impacts Study Committee, National Research Council Assembly of Engineering; untitled report to Deputy Assistant Administrator for Mobile Source Air Pollution Control, U.S. Environmental Protection Agency, June 30, 1980; excerpt—Sep, 3

CETA [Comprehensive Employment and Training Act of 1973]: Assessment of Public Service Employment Programs; Committee on Evaluation of Employment and Training Programs, National Research Council Assembly of Behavioral and Social Sciences; excerpt—Apr, 3

Chemical Environmental Mutagens, Committee on, Board on Toxicology and Environmental Health Hazards, National Research Council Assembly of Life Sciences; the committee was established, with the support of a consortium of Federal agencies and through a contract with the Environmental Protection Agency, to examine scientific problems involved in trying to assess the likelihood that exposure to mutagenic substances in the environment will lead to cancer or to genetically-transmissible diseases perhaps including cancer—Jan, 1

climate: *see Atmospheric Sciences; Protection against Depletion of Stratospheric Ozone; Strategy for the National Climate Program; Stratospheric Ozone Depletion; Weather-Information Systems*

Climate Research Board, National Research Council Assembly of Mathematical and Physical Sciences: *see Carbon Dioxide and Climate; Strategy for the National Climate Program*

Coast Guard, U.S.: *see Safety Aspects of Liquefied Natural Gas*

College Science Education of Non-Specialists, Committee for the Study of the Federal Role in, National Research Council Commission on Human Resources; the committee was organized to study how the Federal Government, especially the National Science Foundation and the U.S. Department of Education, can improve science education for non-science undergraduates. The study will consider ways to stimulate enrollment in science courses and will examine ways in which science is used in non-science careers—Jun, 1

Commerce, U.S. Department of: *see Weather-Information Systems*

Comprehensive Employment and Training Act of 1973: *see CETA; New CETA*

Conservation of Historic Stone Buildings and Monuments, National Materials Advisory Board Committee on, National Research Council Commission on Sociotechnical Systems; the committee was formed, with support from the National Science Foundation, the General Services Administration, the Environmental Protection Agency, and the Andrew W. Mellon Foundation, to study scientific problems involved in preserving historic stone structures and to seek ways of fostering exchange of information between scientists and conservators—Dec, 1

Continental Tectonics (Studies in Geophysics), Panel on Continental Tectonics, Geophysics Study Committee, Geophysics Research Board, National Research Council Assembly of Mathematical and Physical Sciences; excerpt—May, 6

Cordes, Joseph J., author of report issued by the National Research Council Assembly of Engineering and the National Academy of Engineering: *see Impact of Tax and Financial Regulatory Policies on Industrial Innovation*

Council on Environmental Quality: *see Surface Mining of Non-Coal Minerals*

Crook, Leonard T., chairman of Space Applications Board panel: *see Remote Sensing for Water Resources and Hydrology*

Crow, James F., chairman of new Board on Toxicology and Environmental Health Hazards committee: *see* Chemical Environmental Mutagens

Deaths, of members and foreign associates of the National Academy of Engineering: G. A. Hathaway—Jan, 4; B. A. Hicks—Mar, 11; J. D. Isaacs—Oct, 6; W. K. Linvill—Nov, 6; J. W. Mauchly—Apr, 4; J. S. McDonnell—Nov, 6; J. E. McKee—Jan, 4; A. C. Monteith—Feb, 6; D. E. Noble—May, 6; W. Prager—Jul, 6; H. Rüsch—Feb, 6; C. R. Soderberg—Jan, 4

deaths, of members and foreign associates of the National Academy of Sciences: E. G. Ball—Jan, 4; R. T. Birge; A. T. Blomquist—Jul, 6; E. A. Brun—Apr, 4; Sir E. C. Bullard, W. G. Cochran—Jul, 6; G. Dalldorf, R. C. Elderfield—Apr, 4; J. Folch-Pi—Jan, 4; J. J. Gibson—Mar, 11; E. Hille—May, 6; J. D. Isaacs—Oct, 6; H. L. Johnson—Jul, 6; W. F. Libby—Nov, 6; E. R. Long—Feb, 6; A. W. Melton—Jan, 4; W. Prager—Jul, 6; R. B. Roberts—Jul, 6; K. D. Roeder—Jan, 4; S. Rokkan, Jan, 4; B. Sander—Jul, 6; P. F. Scholander, P. A. Smith—Oct, 6; C. R. Soderberg—Jan, 4; W. H. Stein—Apr, 4; S. Warren—Oct, 6; A. White—May, 6; H. Williams—Apr, 4; W. G. Young—Nov, 6; W. H. Zachariasen—Apr, 4

Decker, Gerald L., chairman of Energy Engineering Board panel: *see Hydrogen as a Fuel*

Diesel Impacts Study Committee, Committee on Motor Vehicle Emissions, National Research Council Assembly of Engineering; report, untitled, to the Environmental Protection Agency; the committee's critique of the Agency's Carcinogen Assessment Group's *Initial Review on Potential Carcinogenic Impact of Diesel Engine Exhaust* faults that study's treatment of effects of diesel exhaust (which haven't been studied directly) as analogues of effects of exposures to other hydrocarbon products. The *Initial Review* "should have been deferred until it could be based on the findings of presently ongoing research," the committee said; "a realistic risk assessment ought not to be directed to cancer only but to overall morbidity and mortality from other causes." Anything less "would leave any risk assessment of diesel automobiles open to challenge"—Feb, 5

Diesel Impacts Study Committee, National Research Council Assembly of Engineering: *see* Carbon Monoxide Control Assessment Panel

Dietary Allowances, Food and Nutrition Board Committee on, Assembly of Life Sciences Division of Biological Sciences, National Research Council: *see Recommended Dietary Allowances*

Dorfman, Robert, chairman of Environmental Studies Board committee: *see Regulating Pesticides*

Earthquake Research for the Safer Siting of Critical Facilities, Panel on Earthquake Problems Related to the Siting of Critical Facilities, National Research Council Assembly of Mathematical and Physical Sciences; a "comprehensive geologic and seismic data base must be developed so that early decisions [on siting of nuclear reactors, dams, fuel terminals, hospitals, essential communications links, and other "critical facilities"] regarding earthquake hazards can be reached with a high degree of confidence. Such a data base should allow an early input to the *siting process* rather than be viewed as a necessary formality *after* site identification, purchase, or other commitment," the panel said—Aug, 1

economic affairs: *see CETA; Energy in Transition; Energy Taxation; High Temperature Science; Hydrogen as a Fuel; Impact of Tax and Financial Regulatory Policies on Industrial Innovation;* Integration of Socio-Economic Criteria into the Site Selection Process; *New CETA; Regulating Pesticides*

education: *see* College Science Education of Non-Specialists; *Science, Engineering, and Humanities Doctorates*

Education, U.S. Department of: *see* College Science Education of Non-Specialists

Effects on Populations of Exposure to Low Levels of Ionizing Radiation, Committee on the Biological Effects of Ionizing Radiations, Division of Medical Sciences, Assembly of Life Sciences, National Research Council; the committee sought to provide estimates of the ranges of somatic and genetic effects of exposure to low-dose, low-linear energy transfer whole-body radiation. Cancer-risk estimates were based on a linear-quadratic dose-response model considered by a majority of the committee members to be the method most "consistent with epidemiologic and radio-biologic data, but the committee cautioned that its estimates were "based on incomplete data and involve a large degree of uncertainty" and therefore "should in no way be interpreted as precise numerical expectations." Academy President Philip Handler said in an accompanying letter of transmittal to the Environmental Protection Agency that the report "provides the scientific bases upon which standards may be decided after nonscientific social values have been taken into account"—Oct, 1

Eisdorfer, Carl, chairman of Institute of Medicine committee: *see* Stress in Health and Disease

elections, Institute of Medicine: 42 were elected to first 5-year terms beginning Jan. 1, 1981, and 7 others were elected directly to senior membership; new members are: L. H. Aiken, S. P. Asper, J. D. Barchas, W. Bevan, M. S. Blumberg, A. M. Capron, D. R. Challoner, T. W. Clarkson, L. H. Clever, J. A. Clifton, D. W. Cohen, E. G. Cravalho, E. G. Davis, F. W. Denny, D. D. Federman, M. S. Fox, C. Fried, H. S. Ginsberg, J. T. Grayston, M.-L. Johnson, S. B. Jones, A. R. Jonsen, B. M. Korsch, R. M. Krause, R. I. Levy, L. M. Lowenstein, I. M. Sather Martinson, C. A. McCallum, T. C. Merigan, C. A. Miller, R. J. Reitemeier, C. Rich, W. C. Richardson, B. G. Rosenkrantz, E. Rubenstein, J. P. Sanford, T. C. Schelling, A. Shirley, R. B. Talley, A. R. Tarlov, J. V. Terenzio, I. M. Weinstein; new senior members are: K. E. Bloch, K. M. Brinkhous, J. M. Dunning, J. S. Millis, N. Nelson, C. E. Odegaard, R. F. Ruchmer—Dec, 5

elections, National Academy of Engineering: 82 U.S. engineers were elected to membership and 8 engineers were named foreign associates; new members are: A. P. Adamson, A. Amirikian, D. J. Atwood, P. Barkan, S. Baron, J. W. Batchelor, W. B. Behnke, E. Bloch, V. S. Boyer, H. R. Brannon, Jr., H. Brenner, F. A. Cleveland II, E. M. Conwell, W. H. Corcoran, S. Corrsin, E. E. Covert, C. M. Crain, D. D. Crombie, J. B. Cruz, Jr., R. G. Dean, R. F. Decker, L. C. Dirks, J. E. Dolan, R. A. Duffy, L. F. Elkins, R. S. Frank, E. J. Garbarini, J. M. Geist, N.J. Grant, R. W. Hamming, F. L. Hartley, M. C. Hemsworth, J. D. Hoffman, E. E. Hood, Jr., J. K. Hulm, K. U. Ingard, S. E. Isakoff, R. Adm. D. G. Iselin, I. B. Johnson, J. W. Kalb, G. H. Kimmons, L. Kleinrock, S. Kobayashi, H. Kressel, W. A. Kuhrt, L. Landweber, M. Lang, R. A. Laudise, G. C. Lee, T. Li, C. J. McMahon, Jr., H. W. Mergler, C. L. Monismith, A. Newell, K. H. Norris, F. C. E. Oder, J. Y. Oldshue, K. S. Pister, R. C. Reid, J. R. Rice, H. H. Richardson, G. Robeck, V. H. Rumsey, J. W. Schaefer, G. B. Schubauer, G. A. Schurman, B. Sternlicht, W. F. Swiger, E. W. Thiele, K. L. Thompson, M. C. Throdahl, T. A. Vanderslice, G. S. Vassell, H. J. P. von Ohain, J. V. Wehausen, Maj. Gen. J. A. Welch, A. R. C. Westwood, G. L. Wilson, H. W. Withington, B. Wolfe, C.-S. Yih, L. R. Young—May, 2; new foreign associates are: V. F. B. de Mello, F. R. Farmer, Sir C. Frank, T. Kilburn, L. C. Malavard, S. G. Mason, J. R. A. Pearson, R. E. Rowe—May, 7; Arthur M. Bueche and Robert A. Charpie were elected to second terms on the Academy's governing Council; newly elected as councillors were Solomon Buchsbaum and F. Karl Willenbrock (succeeding Edward L. Ginzton and Morris Tanenbaum). Three-year terms for the councillors began July 1—Jul, 3

elections, National Academy of Sciences: Elkan R. Blout was elected to a four-year term as treasurer, succeeding E. R. Piore; elected to three-year terms on the Academy's governing Council were: Ralph E. Gomory, Daniel E. Koshland, Jr., George E. Palade, and John D. Roberts, succeeding R. H. Bing, Clement L. Markert, Helen M. Ranney, and Robert M. Solow. All terms of office began July 1—Jul, 3; 59 U.S. scientists were elected to membership and 12 scientists were named as foreign associates at annual meeting; new members are: K. A. Anderson, F. J. Ayala, P. T. Baker, R. L. Baldwin, H. P. Banks, H. Beinert, A. Bergson, O. B. Berlin, R. S. Berry, J. M. Bishop, P. M. Blau, R. G. Brewer, W. Browder, M. S. Brown, W. L. Brown, A. A. Campbell, H. Chernoff, G. W. Clark, M. L. Cohen, S. Cohen, R. G. Coleman, S. R. Coleman, E. W. Davie, M. A. El-Sayed, R. K. Gershon, E. R. Giblett, E. D. Goldberg, A Goldstein, J. L. Goldstein, M. M. Green, C. M. Harris, D. R. Helinski, J. Hochberg, A. T. Jagendorf, R. M. Karp, F. Kaufman, M.D. Kruskal, J. I. Lacey, J. L. Lebowitz, H. A. Lowenstam, T. H. Maiman, H. P. McKean, R. N. Noyce, E. C. Olson, C. R. Park, J. E. Rall, F. Reines, C. Sawyer, L. Sequeira, J. B. Serrin, E. M. Shoemaker, G. W. Skinner, H. O. Smith, S. H. Snyder,

L. Sokoloff, B. M. Trost, P. K. Vogt, R. H. Wasserman, H. E. Zimmerman—Jul, 2; new foreign associates are: I. Bernal y Garcia Pimentel, J.-E. Blamont, J. G. Bolton, P. Erdös, R. Gautheret, J. B. Gurdon, J.-M. Pierre Lehn, P. Reichard, H. H. Ussing, L. Van Hove, T. N. Wiesel, M. V. Wilkes—Jul, 6

Emergency Jobs Programs Extension Act of 1976: *see CETA*

Employment and Training Programs, Committee on Evaluation of, National Research Council Assembly of Behavioral and Social Sciences: *see CETA; New CETA*

energy: *see* Diesel Impacts Study Committee; *Energy in Transition; Energy Taxation; Hydrogen as a Fuel; Review of Department of Energy Research on Human Health Effects of Low Doses of Ionizing Radiation; Strategy for the National Climate Program; Trace Element Geochemistry of Coal Resource Development;* Underground Coal Mine Safety

Energy, U.S. Department of: *see Energy in Transition; Hydrogen as a Fuel; Review of Department of Energy Research on Human Health Effects of Low Doses of Ionizing Radiation*

Energy Engineering Board, National Research Council Assembly of Engineering: *see Hydrogen as a Fuel*

Energy in Transition, 1985-2010. Final Report, Committee on Nuclear and Alternative Energy Systems, National Research Council; excerpts from the report and its accompanying transmittal documents describe the context, purposes, and results of the comprehensive energy analysis undertaken for the U.S. Department of Energy—Mar, 1

Energy Taxation: An Analysis of Selected Taxes, Committee on Energy Taxation, National Research Council Assembly of Behavioral and Social Sciences; excerpts—Nov, 3

Engineering, National Research Council Assembly of: new projects announced: Panel on Quality Criteria for Water Reuse—Jan, 3; Committee on Assessment of Outer Continental Shelf Activities—Feb, 3; Committee on FAA [Federal Aviation Administration] Airworthiness Certification Proceedures; Committee on Internal Revenue Service Tax Processing System Planning—Mar, 3; Harbor/Port Entrance Design; Sea Ice Mechanics—Apr, 3; Committee on Review of U.S. Postal Service Planning for Electronic Message Service Systems—Jul, 3; Committee on Engineering Considerations for Continuation of Deep Sea Drilling for Scientific Purposes; Committee on Assessment of Benefits for Space Applications Projects—Aug, 3; Committee to Review the U.S. Air Force Plan to Modernize its Computer-based Administrative Support System—Sep, 3; *see also* Carbon Monoxide Control Assessment Panel; Diesel Impacts Study Committee; FAA Airworthiness Certification Procedures; *Hydrogen as a Fuel; Impact of Tax and Financial Regulatory Policies on Industrial Innovation;* Internal Revenue Service Tax Processing System Planning; *Remote Sensing for Water Resources and Hydrology*

Engineering Solutions to Environmental Constraints: I-70 over Vail Pass (Transportation Research Record 717), Transportation Research Board, Commission on Sociotechnical Systems, National Research Council; excerpt—Mar, 5

environment: *see* Carbon Monoxide Control Assessment Panel; Chemical Environmental Mutagens; *Continental Tectonics;* Diesel Impacts Study Committee; *Energy in Transition; Engineering Solutions to Environmental Constraints; Fisheries Ecology; High Temperature Science; Long-Range Environmental Outlook; Protection against Depletion of Stratospheric Ozone; Regulating Pesticides; Research Priorities in Tropical Biology; Review of Department of Energy Research on Human Health Effects of Low Doses of Ionizing Radiation; Strategy for the National Climate Program; Surface Mining of Non-Coal Minerals*

Environmental Protection Agency: *see* Carbon Monoxide Control Assessment Panel; Chemical Environmental Mutagens; Conservation of Historic Stone Buildings and Monuments; Diesel Impacts Study Committee; *Effects on Populations of Exposure to Low Doses of Ionizing Radiation; Regulating Pesticides*

Environmental Studies Board: *see Long-Range Environmental Outlook; Regulating Pesticides*

Fabrikant, Jacob I., chairman of subgroup of the National Research Council Committee on the Biological Effects of Ionizing Radiations: *see Effects on Populations of Exposure to Low Levels of Ionizing Radiation*

Federal Aviation Administration: *see Improving Aircraft Safety*

Federal Land Policy and Management Act of 1976 (43 U.S. Code 1701): *see* Rangelands Management

Fire Safety Aspects of Polymeric Materials. Volume 8—Land Transportation Vehicles (NMAB 318-8), Committee on Fire Safety Aspects of Polymeric Materials, National Materials Advisory Board, National Research Council Commission on Sociotechnical Systems; excerpts—Aug, 3

Fisheries Ecology: Some Constraints that Impede Advances in Our Understanding, Ocean Sciences Board ad hoc group on fisheries ecology, National Research Council Assembly of Mathematical and Physical Sciences; prudent management practices for commercial fisheries must rest on more than vague notions about "health of the ecosystem" or "maximum productivity," the report cautions. Better understanding can come only from "increased ecological understanding," and that understanding depends less on the allocation of research support than on cooperation of scientific societies, government agencies, fisheries laboratories, and international commissions—May, 1

Fishery Conservation and Management Act of 1976 (Pub. L. 94-265, 90 Stat. 331): *see Fisheries Ecology*

Follow-up Studies of World War II and Korean Conflict Prisoners. III. Mortality to January 1, 1976, Robert J. Keehn, Medical Follow-up Agency, National Research Council Assembly of Life Sciences; the comparison of underlying causes of death among former prisoners with causes among sample groups of combat veterans of the same theaters of war shows "a consistent finding of . . . persistent psychological impairment . . . and reported problems of adjustment to civilian life." Psychological effects of captivity have been responsible at least in part for small but nevertheless statistically significant numbers of deaths of repatriated prisoners from trauma and cirrhosis of the liver, Keehn reported—Jun, 4

Food and Agriculture Organization: *see Psoroptic Cattle Scabies Research*

Food and Drug Administration: *see* Nitrates, Nitrites, and Alternative Curing Agents in Food

Food and Nutrition Board, National Research Council Assembly of Life Sciences: *see Recommended Dietary Allowances; Research Needs for Establishing Dietary Guidelines*
food resources: *see Fisheries Ecology;* Impacts of Emerging Agricultural Trends; Nitrates, Nitrites, and Alternative Curing Agents in Food; *Protection against Depletion of Stratospheric Ozone; Psoroptic Cattle Scabies Research; Strategy for the National Climate Program; Weather-Information Systems*
Forecasting the Impact of Legislation on Courts, Committee on Law Enforcement and the Administration of Justice Panel on Legislative Impact on Courts, National Research Council Assembly of Behavioral and Social Sciences; should legislators consider, prior to enacting new legislation, what pressures for courts might be created by new litigation resulting from the legislation? Such information could help courts define and plan for future needs, but, according to the panel, the "basic theoretical and empirical knowledge necessary to develop good estimates . . . is not yet available." The panel warned that "technical questions about caseloads and court capacities can be understood only in a context of broader value-laden and political questions"—Nov, 1

Gardner, Delworth B., chairman of a committee of the Board on Agriculture and Renewable Resources of the National Research Council Commission on Natural Resources: *see* Rangelands Management
General Services Administration: *see* Conservation of Historic Stone Buildings and Monuments
Geochemistry, U.S. National Committee for, National Research Council Assembly of Mathematical and Physical Sciences: *see Trace Element Geochemistry of Coal Resource Development*
Geophysics Research Board, National Research Council Assembly of Mathematical and Physical Sciences: *see Continental Tectonics*
Geophysics Study Committee, Assembly of Mathematical and Physical Sciences Geophysics Research Board, National Research Council: *see Continental Tectonics*
Gray, Richard G., chairman of Commission on Human Resources committee: *see* College Science Education of Non-Specialists
Griffin, Herschel E., chairman of Assembly of Engineering study group: *see* Diesel Impacts Study Committee

Hall, William J., chairman of Assembly of Mathematical and Physical Sciences panel: *see Earthquake Research*
Halver, John E., cochairman of Board on Agriculture and Renewable Resources committee: *see* Impacts of Emerging Agricultural Trends
Hamburg, David A., president of the National Academy of Sciences Institute of Medicine: *see* Institute of Medicine
Handler, Philip, president of the National Academy of Sciences: *see Effects on Populations of Exposure to Low Doses of Ionizing Radiation; Energy in Transition;* Human Rights; Institute of Medicine; *Review of U.S. Air Force Protocol: Epidemiological Investigation of Health Effects in Air Force Personnel Following Exposure to Herbicide Orange*
Harper, Alfred E., chairman of Assembly of Life Sciences Food and Nutrition Board: *see Research Needs for Establishing Dietary Guidelines*
health: *see Alcoholism, Alcohol Abuse, and Related Problems;* Byssinosis; Carbon Monoxide Control Assessment Panel; Chemical Environmental Mutagens; Diesel Impacts Study Commitee; *Effects on Populations of Exposure to Low Levels of Ionizing Radiation; Energy in Transition; Follow-up Studies of World War II and Korean Conflict Prisoners;* Nitrates, Nitrites, and Alternative Curing Agents in Food; *National Research Council in 1979; Protection against Depletion of Stratospheric Ozone; Recommended Dietary Allowances; Research Needs for Establishing Dietary Guildelines; Review of Department of Energy Research on Human Health Effects of Low Doses of Ionizing Radiation; Review of U.S. Air Force Protocol: Epidemiological Investigation of Health Effects in Air Force Personnel Following Exposure to Herbicide Orange; Stratospheric Ozone Depletion;* Stress in Health and Disease; *Study of Methods for Increasing Safety Belt Use; Trace Element Geochemistry of Coal Resource Development*
Health Effects of Ionizing Radiation, Committee on DOE Research on, National Research Council Assembly of Life Sciences Division of Medical Sciences: *see Review of Department of Energy Research*
Human Resources, National Research Council Commission on: new projects announced: Committee for the Study of Federal Role in College Science Education of Non-Specialists; Committee on a Study of National Educational Policies in Science and Engineering —Jun, 3; *see also Science, Engineering, and Humanities Doctorates*
High Temperature Science: Future Needs and Anticipated Developments, Committee on High Temperature Science and Technology, Assembly of Mathematical and Physical Sciences, National Research Council; at high temperatures (over about 500 degrees Kelvin) the properties of most substances change in ways that are not understood fully and that cannot be extrapolated from room-temperature behavior. The committee, in reporting results of a 1979 workshop supported by the National Science Foundation, did not seek to make specific recommendations so much as to point out potential opportunities in the field. Needs for economic and environmentally-acceptable ways to produce and use energy and materials, the committee said, will determine in large part needs for future emphases of study in high-temperature science—Apr, 2
Human Rights, National Academy of Sciences Committee on: on January 23 Academy president Philip Handler issued a statement on Soviet action against Andrei Sakharov; reprinted—Mar, 2; on August 12 the Council of the Academy published a statement on its review of "the prospects of its program of scientific exchanges with the Academy of Sciences of the USSR;" reprinted—Oct 5
Hydrogen as a Fuel, Hydrogen Panel, Committee on Advanced Energy Storage Systems, Energy Engineering Board, National Research Council Assembly of Engineering; will hydrogen find greater use as a fuel? Not while hydrocarbons remain economically available, the panel told the Department of Energy. In the meantime, though, there are needs for exploratory research on new techniques for the production, transmission, storage, and use of hydrogen, and the panel also urged, in recommending a "detailed comparison of hydrogen with other fuels," that attention be

given to possible social, economic, and environmental effects of increased use of hydrogen as a fuel—Jan, 1

Impact of Tax and Financial Regulatory Policies on Industrial Innovation, Committee on Technology and International Economic and Trade Issues, National Research Council Assembly of Engineering, and Office of the Foreign Secretary, National Academy of Engineering; prepared by Joseph J. Cordes; excerpt—Jun, 8

Impacts of Emerging Agricultural Trends on Fish and Wildlife Habitat, Committee on, Board on Agriculture and Renewable Resources, National Research Council Commission on Natural Resources; the committee was formed at the request of the U.S. Department of the Interior and the U.S. Department of Agriculture to study questions raised by the effects of changing agricultural land-use, crop-selection, and farming practices on local and regional ecosystems—Aug, 1

Impacts of Stratospheric Change, Committee on, National Research Council Assembly of Mathematical and Physical Sciences: *see Protection against Depletion of Stratospheric Ozone*

Improving Aircraft Safety: FAA [Federal Aviation Administration] Certification of Commercial Passenger Aircraft, Committee on FAA Airworthiness Certification Procedures, National Research Council Assembly of Engineering; the committee said it "discovered nothing . . . that would lead us to conclude that the confidence gained in the airworthiness of our nation's transport aircraft is unwarranted," but the process of certification "can and should be improved." That improvement "will call for an exceptional capacity to imagine unlikely problems, and thus to anticipate the need for further rules and practices, before the unpredictable accident strikes. [The FAA] must take more initiative in every aspect of its work and, to do so, it must improve the expertise and quality of the technical staff and advisors upon whose judgment it relies"—study announced, Mar, 3; reported, Sep, 1

Initial Review on Potential Carcinogenic Impact of Diesel Engine Exhaust; 1979 report of the Environmental Protection Agency's Carcinogen Assessment Group: *see* Diesel Impacts Study Committee

Institute of Medicine: Frederick C. Robbins was announced as David A. Hamburg's successor as the Institute's president, effective in October—May 1; new projects announced: Planning Study for an Ongoing Study of Costs of Environment-Related Health Effects; Research on Stress in Health and Disease; Study of Access to and Quality of Health Care for Minorities and Handicapped Persons—Feb, 3; Study on Health Planning: Phase 2—Mar, 3; Conference on Clinical Investigations in the 1980s; Conference on Health Promotion in the Mass Media; Revson Conferences on Biomedical Research Policy: Conference on Environment-Genetic Interaction, Conference on Current Issues in Medical Trials, and Conference on International Policy Approaches to Cancer Research —Jul, 3; Committee for a study of Scientific Evidence Relevant to Mandatory Age Retirement for Airline Pilots—Oct, 3; *see also Alcoholism, Alcohol Abuse, and Related Problems;* Stress in Health and Disease

Integration of Socio-Economic Criteria into the Site Selection Process for a High-Level Radioactive Waste Repository, Panel on, Committee on Radioactive Waste Management, National Research Council Commission on Natural Resources; concern for geologic suitability has guided most consideration of possible sites for disposal of radioactive wastes; the panel was formed at the request of the U.S. Department of Energy to attempt to identify social and economic issues to be considered also in the selection of repository sites—Jun,1

Interior, U.S. Department of: *see* Impacts of Emerging Agricultural Trends; Water Resources Research Review

Internal Revenue Service Tax Processing System Planning, Committee on, Board on Telecommunications-Computer Applications, National Research Council Assembly of Engineering; the Internal Revenue Service intends to replace much of its data-processing equipment by about 1987. The committee was formed to advise on the technical adequacy of the new equipment, on provisions for security and privacy of personal information in planned processing of tax returns with the new systems, and on the transition process—Mar, 1

international affairs: *see* Marine Ecosystem Research; *Research Priorities in Tropical Biology; Summary Report . . . on Science and Technology in Jordanian Development; see also* Human Rights, National Academy of Sciences Committee on; National Academy of Sciences

International Relations, National Research Council Commission on: new projects announced: International Workshop on Energy Assessment Methodologies; Joint Workshop on Postharvest Food Conservation with the Indian National Science Academy; U.S.-China Education Clearinghouse—Feb, 3; Joint Workshop on Postharvest Food Losses with the Sri Lankan National Science Council—Apr, 3; Panel on Producer Gas for Motor Transport—Jun, 3; Committee on International Security and Arms Control—Sep, 3; Distinguished Scholar Exchange Program, Committee on Scholarly Communication with the People's Republic of China; Sponsorship of conferences, Committee on Scholarly Communication with the People's Republic of China; Comparative Assessment of Factors Involved in Introducing Selected Renewable Energy Technologies in Developing Countries—Oct, 3; *see also Summary Report . . . on Science and Technology in Jordanian Development*

Jensen, Rue, chairman of subcommittee of the Board on Agriculture and Renewable Resources Committee on Animal Health: *see Psoroptic Cattle Scabies Research*

Keehn, Robert J., author of Medical Follow-up Agency report: *see Follow-up Studies of World War II and Korean Conflict Prisoners*

Kleinerman, Jerome, chairman of National Research Council Assembly of Life Sciences committee: *see* Byssinosis

Kreidler, Robert N., chairman of Board on Science and Technology in International Development panel: *see Summary Report . . . on Science and Technology in Jordanian Development*

Krislov, Samuel, chairman of Committee on Law Enforcement and the Administration of Justice panel: *see Forecasting the Impact of Legislation on Courts*

Land Management, Bureau of: *see* Rangelands Management

law: *see Forecasting the Impact of Legislation on Courts; Impact of Tax and Financial Regulatory Policies on Industrial Innovation; Improving Aircraft Safety; National Research Council in 1979; Regulating Pesticides*

Leith, Cecil E., Jr., chairman of Assembly of Mathematical and Physical Sciences study group: *see Atmospheric Sciences*

Levy, Eugene, chairman of Assembly of Mathematical and Physical Sciences Committee on Planetary and Lunar Exploration: *see Strategy for the Exploration of Primitive Solar-System Bodies*

Life Sciences, National Research Council Assembly of: new projects announced: Panel on Quality Criteria for Water Reuse; Committee on Chemical Environmental Mutagens—Jan, 3; Ad Hoc Panel Concerned with Review of the U.S. Air Force Protocol for an Epidemiological Study of Effects of Herbicide Orange; Committee on Amines; Committee on Byssinosis; Recommendations on the feasibility of an epidemiological study of work-related mortality among civilian personnel who worked at Hill Air Force Base during the period 1950-1975; Specifications for Water-Treatment Chemicals—Apr, 3; Steering committee for a workshop on the transport of organic carbon matter to the oceans—Jul, 3; Assessment of Dietary and Nutritional Factors and Cancer—Sep, 3; Committee on Nitrates, Nitrites, and Alternative Curing Agents in Food; Committee on Veterinary Medical Sciences—Dec, 3; *see also* Byssinosis; Chemical Environmental Mutagens; *Effects on Populations of Exposure to Low Doses of Ionizing Radiation; Follow-up Studies of World War II and Korean Conflict Prisoners;* Nitrates, Nitrites, and Alternative Curing Agents in Food; *Recommended Dietary Allowances; Research Needs for Establishing Dietary Guidelines; Research Priorities in Tropical Biology; Review of Department of Energy Research on Health Effects of Low Doses of Ionizing Radiation; Review of U.S. Air Force Protocol: Epidemiological Investigation of Health Effects in Air Force Personnel Following Exposure to Herbicide Orange*

Long-Range Environmental Outlook. Proceeding of a Workshop, November 14-16, 1979, Environmental Studies Board, Commission on Natural Resources, National Research Council; excerpt—Aug, 6

Low, George M., chairman of National Research Council Assembly of Engineering's Committee on FAA Airworthiness Certification Procedures: *see Improving Aircraft Safety*

Lowdermilk, Robert H., "Meeting the Challenges of Environmental Restrictions in the Vail Pass Project," excerpts; *see Engineering Solutions to Environmental Constraints*

MacMahon, Brian, author of essay on "Strengths and Limitations of Epidemiology;" excerpts—Apr, 4

MacMillan, Douglas C., cochairman of National Materials Advisory Board panel: *see Safety Aspects of Liquefied Natural Gas*

Malde, Harold E., chairman of panel of the Committee on Surface Mining and Reclamation: *see Surface Mining of Non-Coal Minerals. Appendix II*

Marine Ecosystem Research in the Antarctic, joint Committee to Evaluate, Polar Research Board and Ocean Sciences Board, National Research Council Assembly of Mathematical and Physical Sciences; the committee was formed to advise the National Science Foundation, the National Oceanic and Atmospheric Administration, and the Marine Mammal Commission on the relationship to U.S. scientific interests of national and international plans for marine ecological studies in the Antarctic and to recommend appropriate goals for U.S. contributions to Antarctic marine ecosystems research—Sep, 1

Marine Mammal Commission: *see* Marine Ecosystem Research

Mathematical and Physical Sciences, National Research Council Assembly of: new projects announced: Panel on the Geochemistry of Fibrous Materials Related to Health Risks—Feb, 3; Role of Satellites in Oceanography—Mar, 3; Panel to Study the Conduct of Basic Research in Computer Science and its Interaction with Applied Research and Development—Jul, 3; Committee to Evaluate Marine Ecosystem Research in the Antarctic—Sep, 3; *see also Atmospheric Sciences; Carbon Dioxide and Climate; Continental Tectonics; Earthquake Research; Fisheries Ecology; High Temperature Science;* Marine Ecosystem Research; *Protection against Depletion of Stratospheric Ozone; Strategy for the Exploration of Primitive Solar-System Bodies; Strategy for the National Climate Program; Stratospheric Ozone Depletion*

McCarty, Maclyn, chairman of National Research Council Assembly of Life Sciences committee: *see* Nitrates, Nitrites, and Alternative Curing Agents in Food

McCorkle, Chester O., Jr., cochairman of Board on Agriculture and Renewable Resources committee: *see* Impacts of Emerging Agricultural Trends

Medical Follow-up Agency, National Research Council Assembly of Life Sciences Division of Medical Sciences: *see Follow-up Studies of World War II and Korean Conflict Prisoners*

Mineral and Energy Resources, Board on, Commission on Natural Resources, National Research Council: *see Surface Mining of Non-Coal Minerals*

Mines, U.S. Bureau of: *see* Underground Coal Mine Safety

Morgan, Russell H., chairman of Assembly of Life Sciences Committee on DOE Research on Health Effects of Ionizing Radiation: *see Review of Department of Energy Research*

Motor Vehicle Emissions, Committee on, Assembly of Engineering, National Research Council: *see* Diesel Impacts Study Committee

Munro, H. N., chairman of Assembly of Life Sciences Committee on Dietary Allowances: *see Recommended Dietary Allowances*

Myers, Norman, author of *Conversion of Tropical Moist Forests,* survey prepared for Assembly of Life Sciences committee: *see Research Priorities in Tropical Biology*

National Academy of Engineering: four men were chosen for three-year terms on the Academy's Council; 82 U.S. engineers were elected to membership and 8 engineers were named foreign associates: *see* elections, National Academy of Engineering; *see also*

awards, National Academy of Engineering; deaths, of members and foreign associates of the National Academy of Engineering; *Impact of Tax and Financial Regulatory Policies on Industrial Innovation*

National Academy of Sciences: Robert M. White's resignation as executive officer of the Academy was announced by Philip Handler, president of the Academy, on January 8—Mar, 1; a Memorandum of Understanding Between the (U.S.) National Academy of Sciences and the Chinese Academy of Sciences was signed in Beijing on January 24. The agreement provides for jointly-organized scientific meetings, exchange of scientific publications, and planning for cooperation in the sciences, and it encourages direct contact between U.S. and Chinese scholars—Apr, 1; a committee was appointed by the Academy's Council in February to nominate at least one candidate to succeed Philip Handler as the Academy's president—Jul, 1; Paul L. Sitton was appointed to succeed Robert M. White as executive officer of the Academy—Jul, 1; Elkan R. Blout was elected treasurer and four new councillors were chosen; 59 U.S. scientists were elected to membership and 12 scientists were named as foreign associates: *see* elections, National Academy of Sciences; *see also* awards, National Academy of Sciences; deaths, of members and foreign associates of the National Academy of Sciences; Human Rights

National Aeronautics and Space Administration: *see Remote Sensing for Water Resources and Hydrology*

National Climate Program Act (Pub. L. 95-367; 92 Stat. 601): *see Strategy for the National Climate Program*

National Institute of Arthritis, Metabolism, and Digestive Diseases: *see Research Needs for Establishing Dietary Guidelines*

National Materials Advisory Board, National Research Council Commission on Sociotechnical Systems: *see Fire Safety Aspects of Polymeric Materials; Safety Aspects of Liquefied Natural Gas*

National Oceanic and Atmospheric Administration: *see* Marine Ecosystem Research; *Strategy for the National Climate Program; Weather-Information Systems*

National Research Council: Robert M. White's resignation as administrator was announced by Philip Handler, chairman of the National Research Council, on January 8—Mar, 1; Paul L. Sitton was appointed executive officer to succeed White—Jul, 1; new projects announced and reports published by: *see* Behavioral and Social Sciences, Assembly of; Engineering, Assembly of; Human Resources, Commission on; International Relations, Commission on; Life Sciences, Assembly of; Mathematical and Physical Sciences, Assembly of; Natural Resources, Commission on; Sociotechnical Systems, Commission on

National Research Council in 1979: Current Issues and Studies, National Academy of Sciences, National Academy of Engineering, and Institute of Medicine; excerpts from essay by Brian MacMahon on "Strengths and Limitations of Epidemiology"—Apr, 5

National Science Foundation: *see* College Science Education of Non-Specialists; Conservation of Historic Stone Buildings and Monuments; *High Temperature Science;* Marine Ecosystem Research; *Research Priorities in Tropical Biology*

natural resources: *see Energy in Transition; Fisheries Ecology; Hydrogen as a Fuel;* Impacts of Emerging Agricultural Trends; Marine Ecosystem Research; Rangelands Management; *Research Priorities in Tropical Biology; Strategy for the National Climate Program; Surface Mining of Non-Coal Minerals;* Water Resources Research Review; *Weather-Information Systems*

Natural Resources, National Research Council Commission on: new projects announced: Methods in Ecotoxicology; Satellite Power Systems—Jan, 3; Developing Strategies for Rangelands Management—Apr, 3; Panel on Integration of Socio-Economic Criteria into the Site Selection Process for a High-Level Radioactive Waste Repository—Jun, 3; Water Resources Research Review Committee—Jul, 3; Committee on Impacts of Emerging Agricultural Trends on Fish and Wildlife Habitat—Aug, 3; Committee on Disposal of Excess Spoil from Coal Mining—Sep, 3; *see also* Integration of Socio-Economic Criteria into the Site Selection Process; *Long-Range Environmental Outlook; Psoroptic Cattle Scabies Research; Regulating Pesticides; Surface Mining of Non-Coal Minerals; Weather-Information Systems*

New CETA [*Comprehensive Employment and Training Act of 1973*]: *Effect on Public Service Employment Programs: Final Report*, Committee on Evaluation of Employment and Training Programs, National Research Council Assembly of Behavioral and Social Sciences, William Mirengoff, *et al.;* excerpt—Dec, 6

Nitrates, Nitrites, and Alternative Curing Agents in Food, Committee on, National Research Council Assembly of Life Sciences; nitrates and nitrites have long been used to cure meats and serve by inhibiting growth of botulism-causing bacteria, but nitrosamines formed from reactions with nitrites (and from nitrites converted to nitrites by other bacterial actions) have been implicated as cancer-causing agents in rats and possibly in man. The committee was formed to advise the U.S. Department of Agriculture and the Food and Drug Administration on risks and benefits to health associated with consumption of nitrates and nitrites and also on studies needed to identify possible alternative curing agents—Dec, 1

Nuclear and Alternative Energy Systems, National Research Council Committee on: *see Energy in Transition*

Ocean Sciences Board, National Research Council Assembly of Mathematical and Physical Sciences: *see Fisheries Ecology;* Marine Ecosystem Research

oceans: *see Carbon Dioxide and Climate; Fisheries Ecology;* Marine Ecosystem Research; *Protection against Depletion of Stratospheric Ozone*

Office of Management and Budget: *see* Water Resources Research Review

Office of Science and Technology Policy: *see* Stress in Health and Disease; Water Resources Research Review

People's Republic of China: *see* National Academy of Sciences

Peters, Max S., chairman of the National Research Council Committee on Alternatives for the Reduction of Chlorofluorocarbon Emissions: *see Protection against Depletion of Stratospheric Ozone*

Pitzer, Kenneth S., chairman of committee

appointed to nominate at least one candidate for the Academy's presidency: *see* National Academy of Sciences

Planetary and Lunar Exploration, Space Science Board Committee on, National Research Council Assembly of Mathematical and Physical Sciences: *see Strategy for the Exploration of Primitive Solar-System Bodies*

Polar Research Board, National Research Council Assembly of Mathematical and Physical Sciences: *see* Marine Ecosystem Research

Protection against Depletion of Stratospheric Ozone by Chlorofluorocarbons, National Research Council committees on Impacts of Stratospheric Change, Assembly of Mathematical and Physical Sciences, and Alternatives for the Reduction of Chlorofluorocarbon Emissions, Commission on Sociotechnical Systems; the committees reiterated the warnings of the authors of *Stratospheric Ozone Depletion* (q.v.) concerning depletion of the ozone layer by continued release of chlorofluorocarbons (CFCs) and the probable effects on health and climate. Worldwide elimination of uses of CFCs as nonessential aerosol propellants would be the most effective short-term step toward solving the problem, the committees said, but it is not the only step. CFCs are used for other purposes, and less-harmful substitutes should be considered wherever possible. Biological uncertainties of CFC effects need to be resolved, but reductions in CFC emissions should be pursued in the meantime. "[The] 'wait-and-see' policy . . . is clearly not a prudent strategy," the committees said—Mar, 2

Prototype Explicit Analysis for Pesticides, Committee on, National Research Council Commission on Natural Resources Environmental Studies Board: *see Regulating Pesticides*

Psoroptic Cattle Scabies Research: An Evaluation, Subcommittee on Psoroptic Cattle Scabies, Board on Agriculture and Renewable Resources Committee on Animal Health, National Research Council Commission on Natural Resources; scabies was nearly eradicated in U.S. cattle 20 years ago, but it has now "reached epidemic proportions," the subcommittee told the U.S. Department of Agriculture. The resurgence of infestation can be blamed in large part on commercial feedlots that have crowded together cattle from many parts of the country and on ineffective acaricides. Costs are difficult to determine but certainly "are high and are borne directly by the cattle industry and indirectly by consumers and taxpayers." Better diagnostic techniques—in particular, for detecting latent scabies—can help to resolve the problem; the subcommittee also stressed the importance of development of more-effective acaricides—Mar, 4

Radford, Edward P., chairman of the National Research Council Committee on Biological Effects of Ionizing Radiations: *see Effects on Populations of Exposure to Low Levels of Ionizing Radiation*

Radioactive Waste Management, Committee on, National Research Council Commission on Natural Resources: *see* Integration of Socio-Economic Criteria into the Site Selection Process

Rangelands Management, Committee on Developing Strategies for, Board on Agriculture and Renewable Resources, National Research Council Commission on Natural Resources; the committee was formed at the request of the Bureau of Land Management to advise on: needs and methods of inventorying rangeland vegetation, soils, and water; effects of grazing on plant succession; and determining a scientific basis for allocating rangeland vegetation to grazing. A two-year series of symposia was planned—Apr, 1

Raven, Peter, chairman of Assembly of Life Sciences committee: *see Research Priorities in Tropical Biology*

Recommended Dietary Allowances (Ninth Revised Edition, 1980), Food and Nutrition Board Committee on Dietary Allowances, Division of Biological Sciences, Assembly of Life Sciences, National Research Council; the Recommended Dietary Allowances are intended to meet "the known nutritional needs of practically all healthy persons." This latest revision of guidelines first published in 1943 contains a few modifications in the master table of nutrients about which a fair amount is known and also contains cautionary comments on nutrients for which appropriate intake levels aren't yet understood confidently and on substances for which sometimes-asserted nutritive values are dubious at best—May, 1

Regulating Pesticides, Committee on Prototype Explicit Analyses for Pesticides, Environmental Studies Board, National Research Council Commission on Natural Resources; the committee's advice to the Environmental Protection Agency's Office of Pesticide Programs included streamlined procedures for selecting and ranking pesticide formulations for assessment. Assessment of costs and benefits should be a part of that process, and where possible costs and benefits should be compared, the committee said, but the comparison should always include explicit recognition of the uncertainties and inadequacies of data. The stakes are "too high for decisions to be reached lightly or without thorough analysis of their implications"—Aug, 1

Remote Sensing for Water Resources and Hydrology: Recommended Research Emphasis for the 1980s, Space Science Board Panel on Water Resources, National Research Council Assembly of Engineering; "Progress in application of remote sensing to water resources has been disappointingly slow," the panel said in a report to the National Aeronautics and Space Administration. The report recommends several areas in which remote sensing would provide valuable information now—forecasting runoff from mountain snowpacks and surveying aquatic vegetation, for example—and areas in which further research is necessary to determine what benefits might be gained by remote sensing—Dec, 4

Research Needs for Establishing Dietary Guidelines for the U.S. Population, Food and Nutrition Board, Division of Biological Sciences, Assembly of Life Sciences, National Research Council; "Needs for energy and essential nutrients vary with age, sex, physiological state, heredity, and physical activity," the board told the National Institute of Arthritis, Metabolism, and Digestive Diseases, but too little is known about the specific needs of various subgroups in the population. The report recommends study of the interrelationships of nutrition and health "to establish accurately what can and cannot be accomplished through nutrition in the maintenance and improvement of health and in the prevention of disease"—Feb, 1

Research Priorities in Tropical Biology, Com-

mittee on Research Priorities in Tropical Biology, National Research Council Assembly of Life Sciences Division of Biological Sciences; the world's tropical moist forests will be destroyed within 50 years if exploitation continues at present rates. Loss of the forests could bring climate change and extinction of many plants and animals. The committee's report to the National Science Foundation stresses the "urgency derived from imminent drastic change" in recommending research in areas of "potential scientific significance . . . , especially in the light of their applicability to human welfare. The committee's work was based in part on *Conversion of Tropical Moist Forests,* a survey prepared for the committee by Norman Myers—Jul, 1

Review of Department of Energy Research on Human Health Effects of Low Doses of Ionizing Radiation, Committee on DOE Research on Health Effects of Ionizing Radiation, National Research Council Assembly of Life Sciences Division of Medical Sciences; the quality of the 16 projects reviewed by the committee is "uneven and . . . unimpressive." Some studies are not justified scientifically, others lack qualified epidemiologic staff, and the entire program suffers from a lack of communication and coordination. The committee recommended improvements in these and other areas to enable the program to develop reliable information on which to base radiation standards and radiation protection programs—Jun, 2

Review of U.S. Air Force Protocol: Epidemiological Investigation of Health Effects in Air Force Personnel Following Exposure to Herbicide Orange, Panel on the Proposed Air Force Study of Herbicide Orange, Committee on Toxicology, National Research Council Assembly of Life Sciences Board on Toxicology and Environmental Health Hazards; excerpt from Philip Handler's letter of transmittal—Jul, 5

Robbins, Frederick C., president of the National Academy of Sciences Institute of Medicine: *see* Institute of Medicine

Rosenblatt, Gerd M., chairman of Assembly of Mathematical and Physical Sciences committee: *see High Temperature Science*

Rowen, Henry, chairman of Assembly of Engineering study group: *see* Diesel Impacts Study Committee

Safety Aspects of Liquefied Natural Gas in the Marine Environment (NMAB-354), National Materials Advisory Board Panel on Liquefied Natural Gas Safety Evaluation, National Research Council Commission on Sociotechnical Systems; marine transport of liquefied natural gas has proceeded without major mishap, but the threat of a spill remains. A large spill could form a methane-air cloud, which could drift over a populated area; if the cloud ignited "the consequences are potentially so damaging that the prevention of such accidents is the overwhelming priority," the panel advised the U.S. Coast Guard. The panel recommended improvements in equipment and in operational procedures to help insure future safety of liquefied natural gas transport—Nov, 1

Sakharov, Andrei: *see* Human Rights

Schiff, Harold I., chairman of panel of the Committee on Impacts of Stratospheric Change: *see Stratospheric Ozone Depletion*

Science, Engineering, and Humanties Doctorates in the United States: 1979 Profile, Survey of Doctorate Recipients, National Research Council Commission on Human Resources, Betty D. Maxfield, study director; a February 1979 survey of an 11.8-percent sample of individuals in the U.S. who have earned doctorates since 1936 indicated low unemployment: an estimated 0.9 percent of science and engineering doctorate-holders and 2.2 percent in the humanities. The commission's analysis also found that employment varied according to field of doctorate, sex, and other factors—Nov, 6

Science and Technology for International Development, Board on, National Research Council Commission on International Relations: *see Summary Report . . . on Science and Technology in Jordanian Development*

Seismology, Committee on, National Research Council Assembly of Mathematical and Physical Sciences: *see Earthquake Research*

Shaw, Robert H., chairman of the Board on Agriculture and Renewable Resources Committee on Weather-Information Systems: *see Weather-Information Systems*

Sitton, Paul L., executive officer of the National Academy of Sciences and of the National Research Council: *see* National Academy of Sciences; National Research Council

social problems: *see Alcoholism, Alcohol Abuse, and Related Problems; Follow-up Studies of World War II and Korean Conflict Prisoners;* Integration of Socio-Economic Criteria into the Site Selection Process; Stress in Health and Disease

Sociotechnical Systems, National Research Council Commission on: new projects announced: Anchor Chain Manufacture; Equivalent Safety Concept; Flood Insurance Studies Research; Panel on Buiiding Systems; Panel on Community Systems; Panel on Consumer Motivation; Panel on Consumer Products; Panel on Technology Transfer; Panel on Urban Wastes; Refinement of the National Program Plan for Building Thermal Envelope Systems and Materials; Review of Highway Maintenance Research Needs; Supply Management for a Transportation Research Information On-Line Data Base—Jan, 3; Committee on Natural Disasters; Conference on Relocation and Real Property Acquisition; Identification of Transportation Data Needs and Measures for the Facilitation of Data Flows; National Workshops on Pavement Management—Feb, 3; Committee on Underground Mine Disaster Survival and Rescue; National Conference on Highway Pavement Recycling—Mar, 3; Committee on Assessment of Current HgCdTe Production Technology; Committee on Dynamic Compaction of Metal and Ceramic Powders; Committee on Effective Utilization of Weld Metal Yield Strength; Committee on Management of Urban Construction Programs; Committee on Materials Needs for the Utilization of Geothermal Energy; Committee on Materials Substitution Methodology; Committee on the Requirements for a National Materials Policy Planning Process; Committee on Identification of Critical and Strategic Materials for Naval Combat Systems—May, 3; Committee on Elastomers for High Load-Bearing Applications—Jun, 3; Committee on Materials Selection Policies for Community Facilities Programs; Planning Committee for Workshop on Dehydration and Compression of Foods—Aug, 3; Committee on Assessment of the Impact of DOD [U.S. Department of Defense] Very High Speed Integrated Circuit (VHSIC) Program; Committee on Environmentally Assisted Cracking Test Methods for High Strength Steel Weldments; Committee on Evaluation of Enewetak Radioactivity Con-

tainment; Committee on Nondestructive Testing of Longitudinal Force in Rails; Continuation of Research Study into Air Transport and Airport Operations Technology and Planning; Evaluation of the DOD [U.S. Department of Defense] Food RDT&Eng [Research, Development, Testing, and Engineering] Program; Panel on Upgraded Forms of Materials and Recycled Materials for the National Stockpile—Sep, 3; Committee on Advanced Joining Technology; Committee on the Assessment of the Industrial Energy Conservation Program—Oct, 3; Committee on Underground Coal Mine Safety; Conference on Intercity Bus Transportation—Nov, 3; Committee on Assessment of Selected Materials Issues; Committee on Conservation of Historic Stone Buildings and Monuments; Panel on Ferrous Metal Fires; Symposium on Hospital Patient Feeding—Dec, 3; *see also Engineering Solutions to Environmental Constraints; Fire Safety Aspects of Polymeric Materials; Protection against Depletion of Stratospheric Ozone; Safety Aspects of Liquefied Natural Gas; Study of Methods for Increasing Safety Belt Use;* Underground Coal Mine Safety

space: *see Remote Sensing for Water Resources and Hydrology; Strategy for the Exploration of Primitive Solar-System Bodies*

Space Applications Board, National Research Council Assembly of Engineering: *see Remote Sensing for Water Resources and Hydrology*

Space Science Board, National Research Council Assembly of Mathematical and Physical Sciences: *see Strategy for the Exploration of Primitive Solar-System Bodies*

Spokes, Ernest M., chairman of Commission on Sociotechnical Systems committee: *see* Underground Coal Mine Safety

Steele, John, chairman of Ocean Sciences Board study groups *see Fisheries Ecology;* Marine Ecosystem Research

Strategy for the Exploration of Primitive Solar-System Bodies—Asteroids, Comets, and Meteoroids—1980-1990, Space Science Board Committee on Planetary and Lunar Exploration, National Research Council Assembly of Mathematical and Physical Sciences; study of asteroids, comets, and meteoroids—"primitive objects" believed to be little-changed relics of the processes that formed the solar system—should be an integral part of "a coherent and comprehensive strategy for scientific exploration of the planetary system over approximately the next decade," the committee said—Sep, 1

Strategy for the National Climate Program, report of the workshop to review the preliminary National Climate Program Plan, Woods Hole, Ma., July 16-21, 1979, to the Climate Research Board, National Research Council Assembly of Mathematical and Physical Sciences; workshop participants met at the request of the National Oceanic and Atmospheric Administration to review the National Climate Program Plan and also to advise on long-term strategy for studying climate. The report recommends that future efforts be directed toward: (1) "improved use of existing climate knowledge and . . . exploration of the economic benefits that might be derived from more-effective use of climate information;" (2) "research necessary for the determination of the sensitivity of climate to man-made and natural perturbations;" and (3) an enhanced "national and international research effort to develop an ability to predict the fluctuations of climate . . . and to assess the related social implications"—Apr, 1

Stratospheric Ozone Depletion by Halocarbons: Chemistry and Transport, Panel on Stratospheric Chemistry and Transport, Committee on Impacts of Stratospheric Change, National Research Council Assembly of Mathematical and Physical Sciences; the earth's ozone screen keeps excessive amounts of ultraviolet radiation from reaching the earth's surface, but "continued release of halocarbons into the atmosphere will result in a significant decrease in the amount of stratospheric ozone," the panel warned. That decrease implies increased incidence of skin cancer and the possibility of atmospheric changes affecting climate. The panel, using computer-based mathematical models and error-analysis, estimated that continued release of halocarbons at 1977 rates would deplete ozone by between 5 and 28 percent, most probably by 16.5 percent (the panel assigned a likelihood of 19 chances in 20 that the actual level would be within the range of 5-28 percent)—Jan, 1; *see also Protection against Depletion of Stratospheric Ozone*

Stress in Health and Disease, Committee to Study Research on, National Academy of Sciences Institute of Medicine; failure of the human capacity to cope has long been implicated in certain conditions—peptic ulcer, for example; recent research suggests that stress may increase the body's susceptibility to disease in general; but little is known about the human capacity to cope or about the failure to cope and the attendant consequences for health. The committee was formed, with support from the Office of Science and Technology Policy, to look at what is known about biomedical, psychological, and social effects of stress, and to point our promising directions for future research—Feb, 1

Study of Methods for Increasing Safety Belt Use: Study Report, Steering Committee for the Study of Methods to Increase Use of Safety Belts, Transportation Research Board, National Research Council Commission on Sociotechnical Systems; excerpt—Jun, 3

Summary Report of the National Academy of Sciences Panel on Science and Technology in Jordanian Development, Amman, Jordan, July 27-August 4, 1979, Panel on Science and Technology in Jordanian Development, Board on Science and Technology for International Development, National Research Council Commission on International Relations; among recommendations to the U.S. Agency for International Development, based on the panel's 1979 meeting with scientists and government officials of Jordan: more stress should be placed on incorporating science-and-technology policy in planning for development within Jordan's National Planning Council, and more attention should be given to the "imperative" need to establish research and training programs at Jordan's two major universities in such fields as agriculture and management of water and energy resources—Feb, 6

Surface Mining Control and Reclamation Act of 1977 (Pub. L. 95-87, 91 Stat. 445-532): *see Surface Mining of Non-Coal Minerals*

Surface Mining of Non-Coal Minerals: A Study of Mineral Mining from the Perspective of the Surface Mining Control and Reclamation Act of 1977, Committee on Surface Mining and Reclamation, Board on Mineral and Energy Resources, National Research Council Commission on Natural Resources; about 80 minerals are worked from the earth's surface by quarrying, stripping, dredging, and other operations. Can existing or developing methods of surface mining meet the

requirements of the Surface Mining Control and Reclamation Act of 1977? Generally yes, the committee told the Council on Environmental Quality, but "certain provisions of the Act . . . either cannot be met by existing technology or . . . the efforts to adapt technology would be extremely difficult and not necessarily beneficial." In those cases the committee recommended and described other techniques and institutional means to match "environmental objectives of the Act with current and foreseeable mining practices in light of geologic, engineering and economic constraints"—Feb, 1

Surface Mining of Non-Coal Minerals. Appendix II: Mining and Processing of Oil Shale and Tar Sands, working paper prepared by the Panel on Oil Shale and Tar Sands for the Committee on Surface Mining and Reclamation, Board on Mineral and Energy Resources, National Research Council Commission on Natural Resources; "without judicious controls" the environmental effects of development of oil shale and tar sands "are likely to be long-lasting and severe," the panel warned. The report discusses problems and prospects of current and developing technologies and addresses also the potential effects of oil production from shale and tar sands on land, water, air, and biological resources—Jun, 9

Technology and International Economic and Trade Issues, joint committee of the National Research Council Assembly of Engineering and the National Academy of Engineering: *see Impact of Tax and Financial Regulatory Policies*

Toxicology, Committee on, National Research Council Assembly of Life Sciences Board on Toxicology and Environmental Health Hazards: *see Review of U.S. Air Force Protocol: Epidemiological Investigation of Health Effects in Air Force Personnel Following Exposure to Herbicide Orange*

Toxicology and Environmental Health Hazards, Board on, National Research Council Assembly of Life Sciences: *see* Chemical Environmental Mutagens; *Review of U.S. Air Force Protocol: Epidemiological Investigation of Health Effects in Air Force Personnel Following Exposure to Herbicide Orange*

Trace Element Geochemistry of Coal Resource Development Related to Environmental Quality and Health, Panel on the Trace Element Geochemistry of Coal Resource Development Related to Health, U.S. National Committee for Geochemistry Subcommittee on the Geochemical Environment in Relation to Health and Disease, National Research Council Assembly of Mathematical and Physical Sciences; production and use of coal in the United States will increase in the foreseeable future, and enough is known about coal that researchers have at least a general idea of health-related problems that will occur from increased use of coal, the panel said. "The major problem now is to identify the types of studies and possible regulatory actions needed to control those relatively few trace elements" of possibly adverse effects —Oct, 1

transportation: *see* Carbon Monoxide Control Assessment Panel; Diesel Impacts Study Committee; *Engineering Solutions to Environmental Constraints; Improving Aircraft Safety; Safety Aspects of Liquefied Natural Gas; Study of Methods for Increasing Safety Belt Use*

Transportation, U.S. Department of: *see Improving Aircraft Safety*

Transportation Research Board, National Research Council Commission on Sociotechnical Systems: *see Engineering Solutions to Environmental Constraints; Study of Methods for Increasing Safety Belt Use*

Tukey, John W., chairman of the National Research Council Committee on Impacts of Stratospheric Change: *see Protection against Depletion of Stratospheric Ozone; Stratospheric Ozone Depletion*

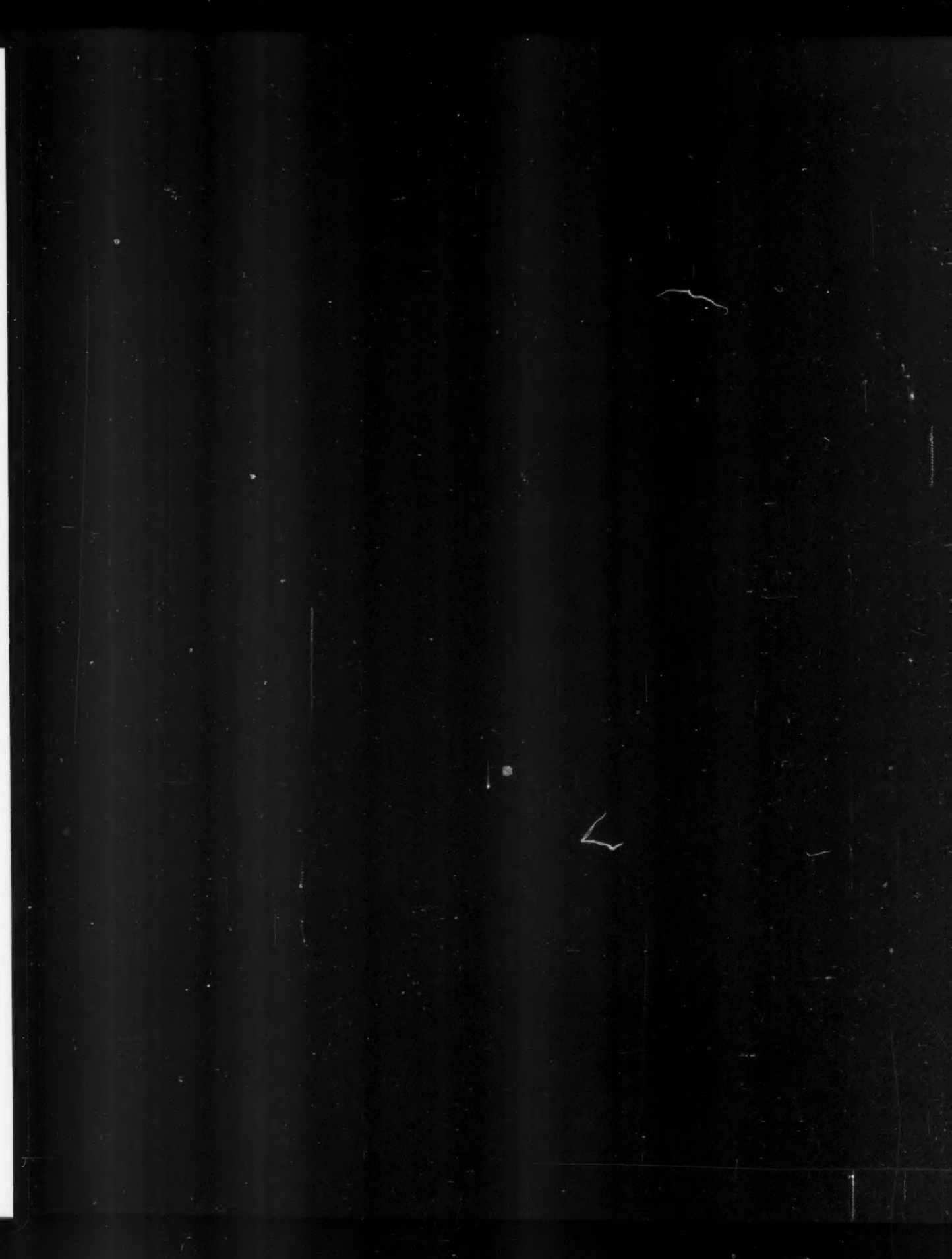
Underground Coal Mine Safety, Committee on, National Research Council Commission on Sociotechnical Systems; the committee was formed to advise the Bureau of Mines on the characteristics that make some mines safer than others and to examine options for improving the safety of all underground coal mines—Nov, 1

Ware, Willis H., chairman of Assembly of Engineering Board on Telecommunications-Computer Applications committee: *see* Internal Revenue Service Tax Processing System Planning

Water Research and Development Act of 1978 (Pub. L. 95-467): *see* Water Resources Research Review

Water Resources Research Review Committee, National Research Council Commission on Natural Resources; more than a score of Federal agencies are involved in some area of water-resources research. The committee was formed to assist the U.S. Department of the Interior in its preparation of a five-year water-resources research program intended to order research priorities to meet anticipated needs—Jul, 1

Weather-Information Systems for On-Farm Decision Making, Committee on Weather-Information Systems, Board on Agriculture and Renewable Resources, National Research Council Commission on Natural Resources; most farmers get weather forecasts from the same sources used by other people, but farmers have special needs not taken into account by local radio and television or by national planning. The committee's report to the Departments of Agriculture and Commerce calls for improvements in the provision of climate and weather information for farmers and urges that provision of such services be considered primarily a Federal responsibility that should not be abandoned or left to commercial weather-forecasters—Jun, 1

White, Robert M., administrator, National Research Council, and executive officer, National Academy of Sciences: *see* National Academy of Sciences; National Research Council; *see also Strategy for the National Climate Program*

Wixson, Bobby G., chairman of a panel of the Assembly of Mathematical and Physical Sciences U.S. National Committee for Geochemistry: *see Trace Element Geochemistry of Coal Resource Development*